

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of the claims in the application:

### **Listing of Claims:**

1. (Currently Amended) A method of ~~producing diversity-encoded spread-spectrum signals for transmission into a wireless communication channel~~ comprising:  
generating a spread information signal,  
generating a despreading signal,  
diversity-encoding at least one of the spread information signal and the despreading signal, and  
transmitting diversity-encoded spread-spectrum signals by coupling the spread information signal and the despreading signal into the a wireless communication channel.
2. (Currently Amended) The method of ~~producing diversity-encoded spread-spectrum signals recited in claim 1~~ wherein the despreading signal comprises a noise signal.
3. (Currently Amended) The method of ~~producing diversity-encoded spread-spectrum signals recited in claim 1~~ wherein the step of generating the a spread information signal includes further comprises duplicating the spread information signal.
4. (Cancelled)
5. (Currently Amended) The method of ~~producing diversity-encoded spread-spectrum signals recited in claim 1~~ wherein ~~diversity-encoding~~ diversity-encoding includes at least one item of a set comprising providing a time offset, polarizing, applying a predetermined directionality, transmitting from a plurality of spatially separated transmitters, modulating with a predetermined carrier frequency, combining with a carrier having a predetermined mode, and transmitting the signals in at least one predetermined subspace channel.

6. (Currently Amended) The method of ~~producing diversity-encoded spread-spectrum signals recited in claim 1~~ further comprising a step of modulating the spread information signal and the despreading signal onto a carrier signal.

7. (Cancelled)

8. (Currently Amended) A method of ~~producing diversity-encoded spread-spectrum signals for transmission into a wireless communication channel~~ comprising:

generating ~~at least one~~ an information-bearing wideband signal,

generating ~~at least one~~ a decoding signal,

diversity-encoding at least one of the information-bearing wideband signal and the decoding signal, and

transmitting diversity-encoded spread-spectrum signals by coupling the spread information information-bearing wideband signal and the ~~despreading~~ decoding signal into the a wireless communication channel.

9. (Currently Amended) The method of ~~producing diversity-encoded spread-spectrum signals recited in claim 8~~ wherein the information-bearing wideband signal includes a noise signal.

10. (Cancelled).

11. (Currently Amended) The method of ~~producing diversity-encoded spread-spectrum signals recited in claim 8~~ wherein the step of ~~diversity-encoding~~ diversity-encoding includes at least one item of a set including providing a time offset, polarizing, applying a predetermined directionality, transmitting from a plurality of spatially separated transmitters, modulating with a predetermined carrier frequency, combining with a carrier having a predetermined mode, and transmitting the signals in at least one predetermined subspace channel.

12. (Currently Amended) The method of ~~producing diversity-encoded spread-spectrum signals~~

recited in claim 8 further comprising a step of modulating the information-bearing wideband signal and the decoding signal onto a carrier signal.

13-15. (Cancelled)

16. (Currently Amended) A spread-spectrum transmitter comprising:

a wideband-signal generator configured for generating a plurality of wideband signals, at least one of the plurality of wideband signals being ~~designated~~ as a despreading signal,

a modulator coupled to the wideband signal generator and configured for modulating at least one information signal onto at least one of the plurality of wideband signals for generating a ~~spread-spectrum~~ spread information signal,

a diversity processor configured for adjusting at least one diversity parameter of at least one of the ~~spread-spectrum~~ spread information signal and the ~~decoding~~ despreading signal, and

a transmitter configured for transmitting diversity-encoded spread-spectrum signals by coupling the ~~spread-spectrum~~ spread information signal and the despreading signal into ~~the a~~ a wireless communication channel.

17. (Currently Amended) A spread-spectrum transmitter comprising:

a wideband-signal generator configured for generating a plurality of wideband signals, at least one of the plurality of wideband signals being ~~designated~~ as a ~~despreading~~ decoding signal,

a modulator coupled to the wideband signal generator configured for modulating information onto at least one of the plurality of wideband signals for generating a ~~spread-spectrum~~ an information-bearing wideband signal,

a diversity processor configured for adjusting at least one diversity parameter of at least one of the ~~spread-spectrum~~ information-bearing wideband signal and ~~at least one of the plurality of wideband signals~~ decoding signal, and

a transmitter configured for transmitting diversity-encoded spread-spectrum signals by coupling the ~~spread-information~~ information-bearing wideband signal and the ~~despreading~~ decoding signal

into ~~the~~ a wireless communication channel.

18-19. (Cancelled)